

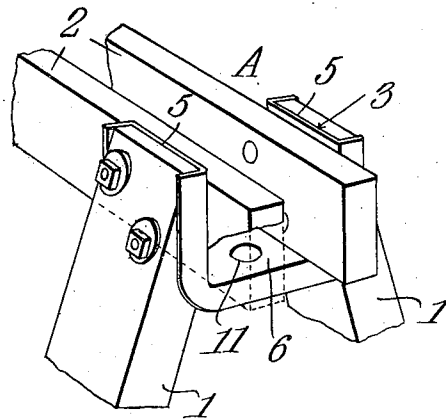
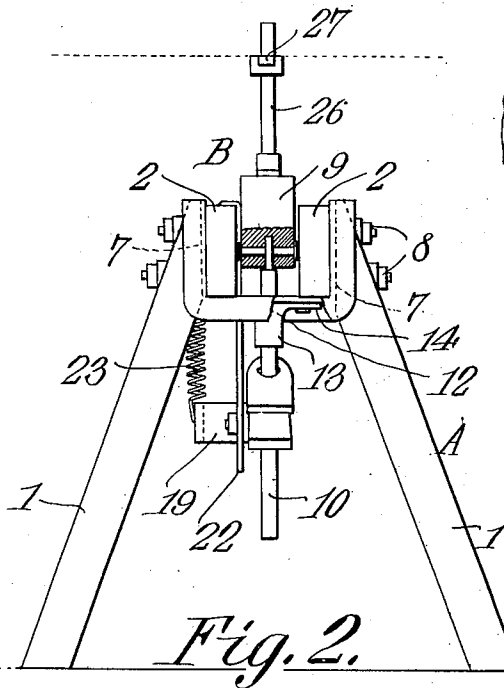
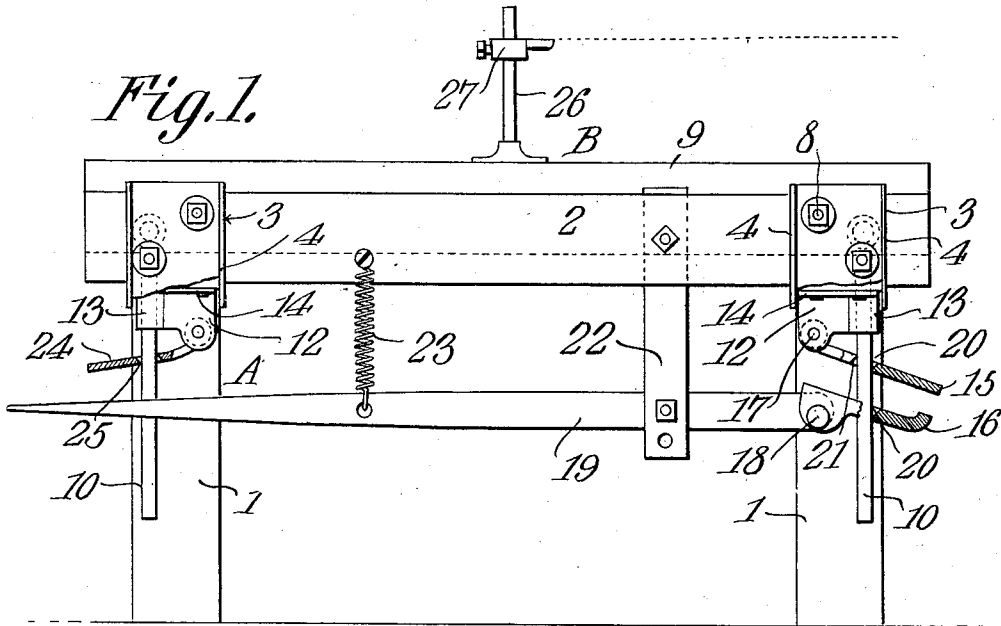
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PATENTED JULY 23, 1907.

J. C. SCOGGINS.

TRESTLE.

APPLICATION FILED NOV. 16, 1906.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JESSE C. SCOGGINS, OF WICHITA, KANSAS.

TRESTLE.

No. 860,943.

Specification of Letters Patent.

Patented July 23, 1907.

Application filed November 16, 1906. Serial No. 343,755.

To all whom it may concern:

Be it known that I, JESSE C. SCOGGINS, a citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented a new and useful Trestle, of which the following is a specification.

This invention relates to a lifting trestle or adjustable horse adapted for a variety of uses where relatively heavy objects are desired to be lifted and supported in an elevated position, and is of special utility to wheelwrights for lifting vehicle bodies from their running gears or for lifting the running gears to facilitate the inspection, repair, or renewal of any of the parts.

The invention has for one of its objects to improve and simplify the construction and operation of devices of this character so as to be comparatively simple and inexpensive to manufacture, easy to operate, and thoroughly reliable and efficient in use.

A further object of the invention is the provision of a simple means for vertically adjusting the lifting element of the device to any desired height for placing it into operative relation with the object to be lifted, after which the object can be lifted by the jack or lifting mechanism to the height desired.

Another object is to provide a simple and substantial bracket for firmly connecting the legs on the supporting frame and the cross member or members so that looseness and play between the parts incident to use will be prevented.

With these objects in view, and others, as will appear as the nature of the invention is better understood, the invention comprises the various novel features of construction and arrangement of parts, which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates one of the embodiments of the invention, Figure 1 is a front elevation of the trestle with portions of the front legs broken away and the lifting dogs partly in section. Fig. 2 is an end view of the device showing portions broken away. Fig. 3 is a perspective view of one of the brackets for connection with the legs of the trestle and the cross pieces.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

Referring to the drawing, A designates the supporting frame of the trestle and B the lifting element thereof. The frame A comprises a pair of oppositely inclined legs 1 at each end and one or more cross members 2 to which the upper ends of the legs 1 are rigidly secured. In securing the legs to the cross pieces, a U-shaped bracket 3 is employed. This bracket, which may be formed by stamping, casting, or in any other suitable manner, is provided with transversely extending flanges 4 along the vertical edges of the upright and bot-

tom portions 5 and 6. Besides considerably reinforcing the bracket, these flanges 4 serve to form sockets on the outside of the vertical portions 5 in which the upper ends of the legs 1 are snugly fitted. As shown by dotted lines at 7, Fig. 2, the upper extremities of the legs are cut off at an angle to their length so as to fit the outside of the vertical portions 5 of the brackets. The cross piece or pieces 2 are arranged between the vertical portions 5 of the brackets, and the parts are secured together by bolts 8 which extend through each cross piece 2, the adjacent vertical portions 5 of the bracket, and the leg on the outside thereof. By this means, the legs are prevented from working loose under the severe strains brought to bear upon the trestle by continued use. The cross pieces in the present instance are spaced apart so as to accommodate between them the vertically movable lifting elements B.

The lifting element comprises a beam 9 which is of practically the same length as the cross pieces and is supported at its ends on vertically extending gripping rods 10. These gripping rods are pivotally connected at their upper ends to the beam and extend through openings in the brackets 3, one of which openings is shown at 11, Fig. 3. Secured to the underside of each bracket is a guide frame 12 having an eye 13 through which the adjacent gripping rod 4 is vertically guided. These frames are formed with horizontally extending flanges 14 whereby they are riveted to the underside of the brackets.

In the present instance, power is applied to only one end of the beam, for the purpose of raising an object. For this purpose, a pair of coacting dogs 15 and 16 are arranged to engage one of the gripping rods so as to move the latter vertically by a step by step movement. The dog 15 is pivoted at 17 on the adjacent guide frame 12. The dog 16 is disposed below the dog 15 and is pivoted at 18 on the end of the operating lever 19. The dogs are provided with openings 20 which are bored at an angle to their length so that diagonally disposed biting edges 21 are formed for taking hold of the gripping rod extending through the openings. The lever 19 is adjustably fulcrumed on the arm 22 depending from one of the cross pieces of the frame A. The dog 16 being attached to the operating lever is the active dog and causes the gripping rods to move up one step at a time for every time the operating lever is depressed. The holdback dog 15 engages the gripping rod during the recovering stroke of the lever, so that the lifting beam 9 will be elevated by the cooperation of the two dogs.

In order to relieve the operator from the necessity of lifting the lever, an extension spring 23 is arranged between the frame A and the lever, so that as the latter is depressed, the spring is energized to recover the lever on the succeeding stroke. The free end of the

operating lever 19, which latter extends longitudinally of the frame A below the cross pieces thereof, projects beyond one end of the frame so as to be conveniently operated by the attendant.

5 The gripping rod 10 located at the end of the frame nearest the handle of the operating lever, is engaged by only one dog. This dog, 24, is pivoted on the guide frame 12 for the adjacent gripping rod and is designed for the purpose of permitting the one end of the beam 9 to be elevated by hand to any desired height. In thus
10 adjusting the beam, the free end of the dog 24 is raised to such a position as to disengage the biting edges 25 from the gripping rod. While this is done with one hand, the beam 9 is lifted by the other. When the desired height is reached, the dog 24 is released so as to bite on the gripping rod and hold the beam in fixed position.

In order to adjust the opposite end of the beam by hand, so as to place the beam in close proximity to an object to be lifted, the operator lifts the dog 16 with
20 one hand until its outer end abuts the dog 15, when both of the dogs are raised sufficiently to release the gripping rod. The beam is then lifted to the required height, whereupon the dogs are both released. Now,
25 to raise an object by power, the operating lever 19 is operated so that the one end of the beam is swung upwardly step by step.

In order to permit the beam to drop, all that is necessary is to lift the outer ends of the dogs sufficiently
30 to permit the gripping rods to slip gradually through the openings of the dogs.

On the beam 9 is provided a standard 26 firmly secured at its lower end and provided with an adjustable rest 27. This rest serves to enable the trestle to be ad-
35 justed to the body of a vehicle, so that the latter can be lifted from the running gears. For this purpose, the trestle is arranged so that the rest will engage under the body at a suitable point to cause the body to be raised by the actuation of the lever 19.

40 I have described the principle of operation of the invention, together with the apparatus which I now consider to be the best embodiment thereof, but I desire to have it understood that the apparatus shown is merely illustrative, and that various changes may be
45 made, when desired, as are within the scope of the invention.

What is claimed is:—

1. In a device of the class described, the combination of
50 a supporting frame comprising a pair of spaced horizontally extending members, legs at the ends of the members, and means securing the legs to the members, with a vertically movable member on the stand and arranged between the said horizontally extending members of the latter, and independently operated devices on the supporting frame

and connected with the said movable member adjacent the
55 ends thereof for actuating the latter.

2. In a device of the class described, the combination of a supporting frame, with a lifting element mounted thereon to swing about one end, a step by step mechanism
60 mounted on the frame for lifting one end of the element, and a spring actuated lever for operating the said mechanism.

3. In a device of the class described, the combination of a supporting frame, with a lifting element movably mounted thereon, means at one end of the frame for manually
65 lifting the element, and means at the opposite end for lifting the element, said means including a power multiplying device.

4. In a device of the class described, the combination of a supporting frame, with a lifting element, gripping rods
70 pivotally connected with and depending from the element adjacent the ends thereof, a single dog mounted on the frame for one of the rods, a pair of coacting dogs on the frame for the other rod, and a means for actuating the pair of dogs.

5. In a device of the class described, the combination of a supporting frame, with a lifting element, vertically movable gripping rods adjacent the ends of the frame, means
75 connecting the rods with the element, dogs mounted on the frame and cooperating with the rods to hold the element, an operating lever mounted on the frame, and a dog pivoted thereon for engaging one of the rods to raise the element.

6. In a device of the class described, the combination of a supporting frame comprising a pair of spaced members,
85 with a lifting beam movable between the members, a vertically movable rod at each end of the beam and disposed between the members, guiding means on the frame for the rods, a pair of dogs engaging one of the rods, a lever extending longitudinally under the members of the frame, a
90 pivotal connection between the lever and one of the dogs, a spring for moving the lever in one direction, and means engaging the other rod for adjusting the height of the beam.

7. In a device of the class described, the combination of
95 a supporting frame comprising a pair of cross pieces, legs at the ends of the cross pieces, brackets connecting the cross pieces and legs and provided each with an opening, and bolts for securing the cross pieces and legs to the brackets, with a lifting beam, gripping rods connected at
100 their upper ends to the beam and extending through the openings of the brackets, guide frames on the brackets for the said rods, a dog pivoted on each guide frame, a lever adjustably mounted on one of the cross pieces and extending with its long arm beyond one end of the frame, a dog
105 pivoted to the short arm of the lever and engaging one of the rods, and a spring between the lever and frame for moving the former in one direction.

8. In a device of the class described, the combination of a supporting frame, with a lifting element movably mounted thereon, an upright on the element, an adjustable rest
110 on the upright, and a mechanism for raising the element.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JESSE C. SCOGGINS.

Witnesses:

JAS. W. SNYDER,
THOMAS BOLING.